REMARKS/ARGUMENTS

Claims 1-26 are pending in this application. By this Amendment, claims 10-11, 13-16, 19 and 21-22 are amended. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); and/or (3) place the application in better form for appeal (if necessary). Entry is thus requested.

Applicants gratefully acknowledge the Office Action's indication that claims 7, 9, 12, 14-19 and 21-22 define patentable subject matter. However, for at least the reasons set forth below, Applicants respectfully submit all pending claims are in condition for allowance.

A.   In addition, Applicants gratefully acknowledge the courtesies extended by Examiner Mahmoudi and SPE Popovici to Applicants' representative, Carl Wesolowski, during a September 3, 2003 personal interview. The substance of the personal interview is incorporated in the following remarks.

During the interview, claim 1 and other rejected independent claims were argued to be allowable over the applied references. In particular, Applicants respectfully submit that the Vaithilingam reference fails to teach or suggest at least features of <u>updating the reliability</u> of the

present weight by reflecting the calculated retrieval performance and updating the present weight using the updated reliability and combinations thereof. Preferred embodiments of the present invention are directed to updating the weight of multimedia object based on retrieval performance evaluation, updating the reliability of the present weight based on retrieval performance evaluation and updating the updated weight using the updated reliability. The outstanding rejection of the independent claims was argued to be in error on these grounds, however, no agreement was reached to this point.

No exhibit was presented or demonstration conducted during the interview.

Applicant respectfully requests that this paper be included in the record for purposes of satisfying the requirements under MPEP §713.04.

B.   The Office Action rejects claims 2, 10 and 23-26 under 35 U.S.C. §103(a) over Vaithilingam and U.S. Patent No. 6,408,293 to Aggarwal et al. (hereafter "Aggarwal"). The rejection is respectfully traversed.

1.   Applicants respectfully submit that Vaithilingam discloses defining meta-descriptors, which are information about descriptors, and the descriptors are representations of a feature or distinctive characteristic of a multimedia object. With respect to claim 2, the Office Action asserts that Vaithilingam discloses calculating retrieval performance with respect to the results of present retrieval citing column 5, lines 40-54 of Vaithilingam, where "performance" is read on "how clearly defined and compact the clusters are."

As described in Vaithilingam, mathematically, a cluster is an aggregation of points in the test space such that the distance between any two points in the cluster is less than the distance between any point on the cluster and any point not in it. See column 5, lines 55-60. Thus, "compactness" of a cluster or the like is merely a description of the cluster, which can be used when extracting or assigning a corresponding metadescriptor and is not related to a querying function. Applicants respectfully submit that metadescriptors as described in Vaithilingam are a secondary grouping in contrast to a listing of a collection of multimedia items. Vaithilingam discloses meta-descriptors being binary vectors, weighted vectors or a string notation such as a character string. See column 6, lines 47-67 and claims 1-6 of Vaithilingam.

2.   Further, the Office Action asserts Vaithilingam discloses updating the reliability of the present weight by reflecting the calculated retrieval performance as recited in claim 2 citing column 9, lines 56-65. Applicants respectfully submit that a method for querying a multimedia repository is illustrated by principal steps 131-137 shown in Figure 1 and described in column 9, lines 1-28. However, Applicants respectfully submit that metadescriptors are directed to a cluster of multimedia items and indirectly provide access to descriptors. Further, metadescriptors merely disclose information about characteristics of a cluster and are not directed to modifying individual features of a multimedia item such as a weight. Accordingly, Applicants respectfully submit that metadescriptors do not teach or suggest modifying a "weight" of a multimedia item. Column 9, lines 56-65 disclose a technique for optimizing meta-descriptors that formalizes user input as illustrated in Figure 4. As such, lines 52-54 of column 9 disclose the user can determine the

weights for each of the suitable features. Thus, Applicants respectfully submit Vaithilingam discloses <u>updating the present weights of individually selected multimedia items</u> based on user input. This could be considered similar to updating a present weight based on using one or more user feedbacks as recited in claim 2. Thus, Applicants respectfully submit that Vaithilingam does not update the <u>reliability</u> of the present weights but updates the <u>weights</u>.

Upon completion of the user updating individual feature weights, Vaithilingam discloses the retrieval system <u>then</u> updating the metadescriptors (306), which were defined above (301) (e.g., 112-114) for example <u>by assigning the new weights</u> (e.g., user input). See column 9, lines 56-60. Applicants respectfully submit this update is in contrast to the claimed features of updating a reliability ... and <u>then</u> updating the present weight <u>using</u> the updated reliability and combinations thereof as recited in claim 2. Thus, Applicants respectfully submit the <u>metadescriptors</u> in Vaithilingam are updated <u>based on the weights</u> and therefore does not teach or suggest at least a feature of <u>updating the present weight using the updated reliability</u> and combinations thereof as recited in claim 2. Thus, Applicants respectfully submit that metadescriptors do not teach or suggest <u>reliability</u> of a present weight that reflects calculated retrieval performance or retrieval performance.

3.   The Office Action asserts Vaithilingam discloses updating the present weight using the updated reliability as recited in claim 2 citing column 14, lines 64-67. Applicants respectfully submit that column 14, lines 39-41, column 14, lines 64-67 and column 15, lines 23-26 disclose meta-descriptors showing a <u>relevancy</u> of each of an ordered set of features (e.g., color,

texture, shape and sketch) of a category of multimedia content and does not teach or suggest a reliability of a weight, let alone a updating <u>the reliability</u> ... by reflecting the calculated retrieved performance; and <u>updating the present weight using the updated reliability</u> and combinations thereof as recited in claim 12.

For at least the reasons set forth above, metadescriptors and querying in Vaithilingam do not teach or suggest at least a features of calculating retrieval performance with respect to the results of present retrieval using the one or more user feedbacks, updating <u>the reliability</u> of the present weight by reflecting the calculated retrieval performance and <u>updating the present weight</u> <u>using the updated reliability</u> and combinations thereof as recited in claim 2. Applicants respectfully submit that Aggarwal does not teach or suggest features recited in claim 2 and lacking from Vaithilingam.

4.   Aggarwal discloses information fed-back by the user during intra-query modification is used for intra-object learning of the user's perception to expedite inter-object learning of a user's perception. See Figures 3-4 and column 3, line 29-column 4, line 48 of Aggarwal. Aggarwal further discloses a similarity measure that is an adaptive quality adjusted using user feedback. See column 5, lines 3-15.

Accordingly, Applicants respectfully submit that user feedback are used to update a feature (e.g., define or redefine the retrieved object or indicate relative importance of features) based on user feedback. Thus, Applicants respectfully submit Aggarwal may disclose features similar to updating a present weight using one or more user feedbacks. However, Applicants

respectfully submit that Aggarwal does not teach or suggest at least a feature of calculating

retrieval performance using the one or more user feedbacks and combinations thereof as recited

in claim 2. Further, Applicants respectfully submit Aggarwal does not teach or suggest at least

features of updating the reliability of the present weight by reflecting the calculated retrieval

performance and updat ing t he pres ent weight using the updated reliability lacking from

Vaithilingam.

For at least the reasons set forth above, Applicants respectfully submit claim 2 defines

patentable subject matter. For at least reasons similar to claim 2, Applicants respectfully submit

claim 10 defines patentable subject matter. Claims 23-26 depend from claims 2 and 10

respectively, and therefore define patentable subject matter for at least that reason as well as their

additionally recited features. Withdrawal of the rejection of claims 2, 10 and 23-26 under 35

U.S.C. §103 is respectfully requested.

C.   The Office Action rejects claims 1, 3-4, 8 and 20 under 35 U.S.C. §103(a) over

U.S. Patent No. 5,835,667 to Wactlar et al. (hereafter "Wactlar") and U.S. Patent No. 6,411,724

to Vaithilingam et al. (hereafter "Vaithilingam"). The rejection is respectfully traversed.

The Office Action asserts that Wactlar discloses (c) updating ... the reliability of the

weight by reflecting the retrieval performance evaluation and the retrieval environment change

(emphasis added) citing column 12 lines 47-51 of Wactlar.

In contrast to the assertion in the Office Action, Applicants respectfully submit that

column 12, lines 47-51 and Figure 6 in Wactlar disclose improved reliability for determining

beginning and end points in "paragraphs" described above using the paragraph function 33. Thus, Wactlar discloses improving the reliability of a feature being segmented (that could later possibly be searched for) from a video data 20 to be entered into a digital library.

Accordingly, Applicants respectfully submit that Wactlar does not teach or suggest updating the...reliability of the weight by reflecting the retrieval performance evaluation and combinations thereof as recited in claim 1. Applicants respectfully submit claim 1 recites updating multimedia feature information of a retrieval performance of a multimedia retrieval system.

Applicants respectfully submit that Wactlar does disclose querying a digital library. See a Section entitled "Exploration of the Digital Library" in column 14, line 39-column 17, line 26. However, column 14 lines 52-61 in Wactlar merely discloses a general query function. Thus, Applicants respectfully submit that Wactlar does not teach or suggest at least the specific features and combinations thereof recited in claim 1.

Further, the Office Action admits Wactlar does not teach or suggest updating ... reliability of the weight by reflecting the retrieval performance evaluation and the retrieval environment change (emphases added). See page 6, lines 8-9 of the Office Action. As described above, Applicants respectfully submit that Vaithilingam does not teach or suggest at least (c) updating ... reliability of the weight by reflecting the retrieval performance evaluation and the retrieval environment change and combinations thereof as recited in claim 1 and lacking from Wactlar. Therefore, Wactlar and Vaithilingam, individually or in combination do not teach or

suggest at least features of (b) detecting change of retrieval environment and (c) updating ...

reliability of the weight by reflecting the retrieval performance evaluation and the retrieval

environment change and combinations thereof as recited in claim 1.

For at least the reasons set forth above, Applicants respectfully submit claim 1 defines

patentable subject matter. Claims 3-4, 8 and 20 depend from claim 1 and therefore define

patentable subject matter for at least that reason as well as their additionally recited features.

Withdrawal of the rejection of claims 1, 3-4, 8 and 20 under 35 U.S.C. §103 is respectfully

requested.

D.   The Office Action rejects claims 5 and 6 under 35 U.S.C. §103(a) over Wactlar,

Vaithilingam and Aggarwal. The rejection is respectfully traversed.

As described above, claim 1 defines patentable subject matter over Wactlar and

Vaithilingam. Applicants respectfully submit that Aggarwal does not teach or suggest at least

features of detecting and updating and combinations thereof as recited in independent claim 1.

Thus, Applicants respectfully submit that Wactlar, Vaithilingam and Aggarwal, individually or in

combination, do not teach or suggest at least features of detecting and updating and combinations

thereof as recited in independent claim 1.

As described above, Applicants respectfully submit claim 1 defines patentable subject

matter. Claims 5-6 depend from claim 1 and therefore also define patentable subject matter for

at least that reason as well as their additionally recited features. Withdrawal of the rejection of

claims 5-6 under 35 U.S.C. §103 is respectfully requested.

E.   The Office Action objects to claims 11-13 and 22 because of informalities. Applicants respectfully submit the above amendments obviate the grounds for the objection. Withdrawal of the objection to claims 11-13 and 22 is respectfully requested.

F.   The Office Action rejects claims 13-15 under 35 U.S.C. §112, first paragraph. The Office Action further rejects claims 11-15, 19 and 21-22 under 35 U.S.C. §112, second paragraph. Applicants respectfully submit the above amendments obviate the grounds for the rejections. However, with respect to the term "learning rate of the weights" recited in claims 11 and 13, Applicants respectfully submit that one of ordinary skill in the art would be reasonably apprized of the scope of the invention. Applicants respectfully submit that the specification and at least claims 12 and 14-16 render claims 11 and 13 definite. Withdrawal of the rejection of claims 11-15, 19 and 21-22 under 35 U.S.C. §112, first and second paragraphs, is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below.

Reply to Office Action of May 20, 2003

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP

Carl R. Wesolowski
Registration No. 40,372

Enc: Petition for Extension of Time

P.O. Box 221200
Chantilly, VA 20153-1200
703 502-9440 DYK/CRW;jld
Date: October 31, 2003

Please direct all correspondence to Customer Number 34610